THE ORIGINS AND DEVELOPMENT OF THE QUEENSLAND HOUSE

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In the development of the nation's houses, those of Queensland — of all the Australian States — have the strongest regional identity in creation of a native indigenous style.

The earliest settlers, having established themselves in earth-floor bark shelters, "wattle and daub" humpies and split-slab huts, built their first cottages consisting of two unequal rooms, side by side, later to be protected by a verandah accessible from the large room which was used for the family cooking, meals and entertainment.

The ruggedly independent settlers were, and had to be, ingenious improvisers. And this was reflected in the practical, simple, unstylish character of their houses. It was inevitable that in a State so abundantly endowed with fine timbers, house building should be dominated by a carpentry tradition that has developed over a century into one of the world's most advanced trade practices. In the last decades of the 19th century the primitive huts of the pioneers were gradually being supplanted by rough hand-sawn local hard and softwoods. In certain districts timber mills were established with steam-driven circular saws, which had been introduced into Australia as early as 1846. This brought enormous advantages in technique and cost. In districts where cedar was available but no saw mills were yet in existence, pit sawn slabs replaced hardwoods, and some have lasted to this day.

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BUNGALOW INFLUENCE

When two-roomed cottages proved inadequate to accommodate their growing families, the owners built the typical pyramidal-roofed house with perimeter verandahs that is to be found throughout Queensland with little plan variation — a characteristic basic form that remained virtually unchanged for 60 years. It was inspired by the Indian bungalow, but had a raised floor which increased in height as the tradition developed. It was the closest that Australia has ever come to producing an indigenous style.

The prototype form of the bungalow derived from British Army tent shapes in Bengal, and the name comes from other, non-Bengali parts of India. In its original or modified form the word exists in at least ten European languages. The bungalow is the only house-type to be found in every continent of the world.

It has existed in England for over a century, possibly introduced by Indian Army officers, civil servants, and traders who returned home to retire. From there it diffused to tropical and sub-tropical countries; and it was particularly suitable for most Australian climates and social conditions. It was established in Queensland by 1900, frequently raised on "high stumps", which, for reasons to be discussed later, became another characteristic of this State's houses.

Visitors to Queensland wonder at the development of its elevated house style. They cannot understand why dwellers in a hot climate give themselves the extra exertion of climbing long flights of steps separating the house from the yard. Of the reasons given for it, protection against white ants must be the most important factor influencing the tradition.

The early settlers, in their resourceful way, soon discovered that elevated houses were an effective deterrent to white ant infestation, particularly to pine flooring and internal partitions, and had several other practical advantages. Stumps cut from suitable trees were often readily available after the clearing of virgin country. By the 1870's, houses were raised about 20 centimetres above ground level. The floor levels were gradually raised to one metre over the next 20 years, but the traditional Queensland house raised on its two-metre stumps was relatively slow in development. It had been found, while the practice of building on stumps was still young, that the introduction of the metal ant-cap ensured further protection. The "trademark" of the elevated house in Queensland residential architecture was finally established in the new century when it was adopted by the designers of "ready cut" and Goverment-financed houses.

There were other practical reasons for its application. The development of "high stump" houses in flood plains such as those surrounding the Logan and Burdekin Rivers ensured that any flood in "the wet" would pass under the house and not sweep it away. This was well demonstrated in the great floods of 1891 and 1974. By raising the family house above flood level the settler created storage space for his vehicles, implements, seed, and possibly livestock. This reduced the need for having out-buildings. The sub-floor area could also provide cheap space for a workshop, laundry, store-room, or children's play room in wet weather.

In short, the raised house was found to have advantages far outweighing the disadvantages, and not surprisingly the high stumps moved from the farms into the proliferating suburbs of the cities. An economical method of building on steep sites had to be found in such hilly country as in some suburbs of Brisbane and Townsville, for instance. The timber stump provided the simple solution, and stumps varied in length to conform with the slope of the land.

The lengths to which "high stumping" can go. Picture taken in a hilly suburb of Brisbane.

In the Brisbane suburb of Red Hill some houses have stumps of one metre at one end and seven metres at the other. In this way expensive foundations on levelled or terraced sites were avoided.

Originally the stumps were barked hardwood of a durable species. They were later treated with tar, creosote or a mixture of sump oil and lampblack, to increase their life. When the raised tradition became accepted in suburbia, the naked stumps were enclosed in stained or painted hardwood batten panels. Or ostentation was added in the shape of batten panels in "arched" or "scolloped" forms.

The origin of the high stump principle may remain obscure, but it has been a feature of the Queensland house for more than a century. A public opinion inquiry on house design conducted by the Queensland Bureau of Industry in 1944 showed that, in 640 replies to a questionnaire, about half favoured "utilisation of the space underneath for laundry" as the reason for having high stumps. Only 20 claimed as a reason the raising of the house for inspection of the stumps and the control of white ants.

The tradition spread from Queensland to the suburbs of Darwin. After cyclone "Tracey" had devastated Darwin in December 1974, official research was begun into cyclone-resistant designs for the re-building. Discouragement of the high-stump principle brought wide protests from residents who favoured a cool retreat, a garage, and activity space under their houses.

VERANDAH'S SIGNIFICANCE

Another major factor influencing the distinctive form and character of the Queensland house has been the verandah. Like so many elements in Australian building, it was imported by settlers and soldiers on colonial duty and adapted to local conditions. The verandah first appeared in the small rectangular huts of the pioneers, as an extension of the roof about two metres wide running along the full extent of the front elevation. Necessity dictated this extended eave. The comfort of the occupants was incidental. Yet the hard-working settlers and their families found relaxation under their verandah roofs one of the few creature comforts of pioneer life.

The hotter or wetter the district, the more significant the verandah became. As the verandah increased in importance for day and night living, it often provided a greater floor area than the ill-lit and badly ventilated core rooms it protected. These were reduced to little more than food preparation and meal areas, dressing cubicles and storage for more valuable items of furniture. The formal living rooms were rarely used as such. Thus the verandah became an essential element in the Queensland architectural heritage.

When the verandah became established, particularly in the elevated houses, techniques were evolved for roofing, balustrading and sun-screening. Graceful, ingeniously contrived verandah roofs, some using curved corrugated iron sheets to good effect, came to impart an important aspect to the profile of the traditional Queensland house. From the types of balustrading employed, the houses also derived much character. One type of balustrading used was the fixing of panels of cast iron tracery under the handrails of the verandahs and external staircases.

This mingling of charm and dignity was typical of a better type of Queensland home at the turn of the century.

These original decorated panels were cast in English foundries, were refined in detail, and simulated the wrought iron of the stately homes. They first appeared in Queensland in the 1860's. There was such a demand for them that Australian foundries started manufacturing and, because many of the English patterns were protected by copyright, Australian makers branched into more florid designs and even turned to Australian wildlife for inspiration. The use of decorative cast iron work declined in the early part of the 20th century, but was to be revived by the merchant builders as a selling inducement of their houses fifty years later.

The practical and economical devices used for verandah screening made yet another important contribution to Queensland domestic architecture. Panels of wood latticework fixed be-

tween the verandah posts proved to be an effective sun shade. Fixed wooden louvre blades or vertical adjustable wooden blades appeared about the end of the 19th century.

The increasing demand for verandah screening led to the invention and manufacture of fixed, adjustable or rolling timber slatted blinds — a development of the venetian blind — which are designed to be suspended from eaves or verandah beams. They were the models for more sophisticated blinds fifty years later.

The adjustable louvre frame, designed for glass or solid blades, was developed on mass production by a Brisbane manufacturer in 1935. The adjustable louvre, with its various forms and applications, had an enormous public acceptance in Queensland and overseas. It answered so many of the local requirements for an inexpensive window or screen unit. The adjustable frames, originally of galvanised iron, were later made of aluminium or finished in baked enamel.

The louvres were a simple method of enclosing verandahs, but they had the undesirable effect of further reducing the ventilation of the inner core rooms when sections of verandahs became extra rooms or sleep-outs. Another problem to be overcome when family activities moved to the verandah was the control of mosquito and flying insects. Fixed fly-screens often were unsightly and impeded cooling breezes. Some house-holders solved this problem by enclosing one end of their verandahs with insect screening.

The characteristic elements of the Queensland house had been so accepted by the turn of the century, and so appropriate for an inexpensive timber house in a benign climate, that they were accepted by architects and tradesmen, and the average house builder would not have considered alternative designs. The indigenous residential architecture that had evolved in the last quarter of the 19th century continued without major modification for some fifty years.

IMPACT OF ROBIN DODS

An article written by Robin Boyd and Peter Newell in the Royal Australian Institute of Architects' *Journal* in July 1950 described the bold departures from the conventional Queensland house form by the post World War II generation of young architects, and remarked that Robin Smith Dods, A.R.I.B.A., was the only architect of note who tried to create a stylistic elegance within the framework of the Queensland vernacular.

Robin Dods was born in New Zealand in 1868 and educated at Brisbane and Edinburgh. He won a competition for the Brisbane General Hospital's nurses' quarters (which were demolished in 1972). On his return to Brisbane in 1896 after ten years abroad, he practised in conjuction with Francis Hall. Queensland then was a relatively poor State, but in 17 years he produced such a volume of significant work that he must be credited with being the Queensland architect who made the greatest impact on the State's domestic architecture.

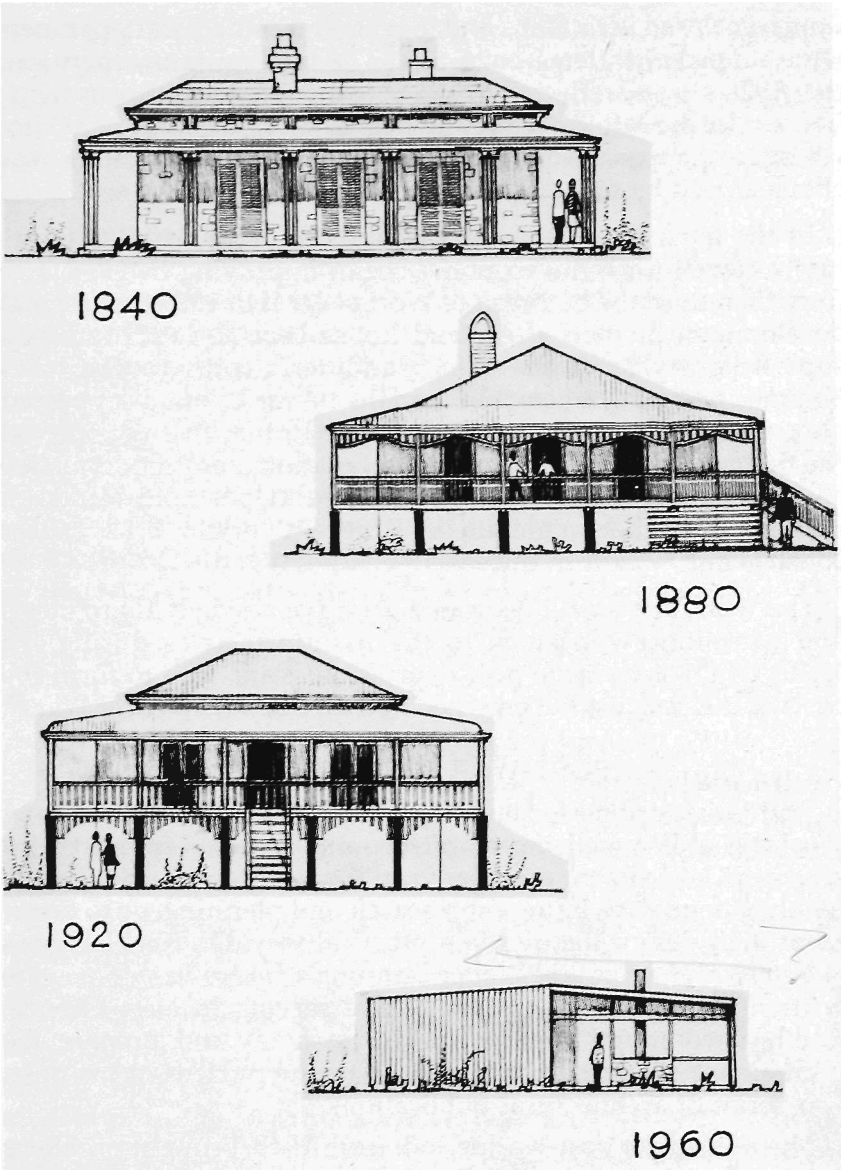
He was fortunate in having elitist clients of the wealthy pastoral and merchant classes who could afford his generously planned houses, the ownership of which became status symbols with their fine timbers put together by skilled exponents of the carpenter's and joiner's crafts.

Dods made no conscious effort to change the established techniques of local construction, but insisted on the highest standards of materials and workmanship. Externally the identifying character of his houses was derived from deep verandahs along the north and east aspects, served by broad flights of timber steps and the dominating steeply pitched roofs sheeted with corrugated iron or ribbed flat-iron. He disliked one of Queensland's traditional house elements in the high timber stumps blackened with sump oil and creosote, which he described as "an ugly forest of bare poles".

Surviving examples of Dods' houses were reduced by demolition in the two decades of the building boom after World War II. A few can still be found, mainly in the Clayfield area of suburban Brisbane, most of them structurally sound, well maintained and still appreciated by their owners.

The elevated bungaloid form continued to develop up to the outbreak of World War I in 1914, and by then it had extended from Queensland into the Northern Rivers district of New South Wales. After World I it was ratified in the housing designs of Government housing agencies. The bungalow reappeared as the "Californian Style" in the 1920's and spread through the southern cities. Its conventional low-pitched roof was readily adjustable to the bungalow's plan-form. The perimeter verandah was abbreviated or replaced by porches.

Where these bungalows were built closer to the ground they represented a break in the raised house tradition; but except for wider roof overhangs they did not make any major contribution to the development of a rational design for the coastal climate.



How the house styles evolved.

Another Californian import, the Spanish Mission style, was becoming firmly entrenched in southern Australian suburbs in the 1920's as the bungalow design declined in popularity. The "snob-value" of Spanish Mission houses was soon firmly established in Sydney, and spread to Melbourne and Canberra. Speculative builders in Brisbane discovered the style, and this was the era in which semi-circular arches on twisted cement col-

umns, enclosed verandahs and loggias and unnecessary parapets were capped with terra-cotta tiles. The increasing prosperity of the 1920's was reflected in improving standards of private houses. In the latter part of the decade another style, the "picturesque", appeared in Brisbane's wealthier suburbs. It was characterised by steep, tiled roofs and brick or stucco walls.

In the great depression, from 1929 on, private building virtually ceased until the economy began improving in 1934, and from then until the outbreak of World War II in 1939 the rational development of the Queensland house became interrupted by superficial stylism. Face bricks and terra-cotta roofing tiles became status symbols. Verandahs shrank or disappeared altogether, and eaves were abbreviated. In that five-year period the first stark experiments in the international or "modernistic" style, with curved corners, flat roofs and porthold windows appeared. Another technique of "southern" origin, brick veneer construction, was introduced.

The work of a small, dedicated group of residential architects and educators, who stuck to the basic principles during the welter of stylism of the post-depression years, was to form the basis of the designs that emerged in the years after World War II.

POST-WAR RESURGENCE

With private domestic building having virtually ceased during World War II, practising architects and students found themselves in Government agencies or in the services, in a position to involve themselves in urgent research and planning, or to document their design theories in a practical way. Dr. Karl Langer's *Sub-tropical Housing* and Walter Bunning's *Homes in the Sun* were written during the war years. While serving in New Guinea, Robin Boyd found time to make the notes and prepare the preliminary sketches which were to be the nucleus of his post-war series of architectural publications.

The immediate post-war period, from 1945, brought problems in providing houses for thousands of young married ex-servicemen and for those prevented from building during the war through shortages in materials and labour. Even though the elimination of wasteful construction and the quicker erection of houses had been officially researched during the war, Governments found it necessary to put severe restrictions on the floor area of post-war houses built with government assistance. Mounting building costs and the physical restriction of floor area meant that planning had to be efficient. There was little

possibility of advancing improved climate design, beyond a more generous employment of wall openings, facilitated by the Queensland development of "hopper" windows and adjustable louvres. The pent-up demand for homes was exacerbated by the post-war influx of migrants; and with costs continuing to rise, delays meant smaller, more expensive houses.

The architects who in the immediate post-war period resumed their practices, did so under extremely difficult and frustrating conditions. They continued to design efficiently planned "functional" houses well suited to the Queensland climate. Their efforts to create significant designs were aided by the notice their work attracted in the Australian and overseas building journals and technical publications. Praise came for the flexibility and informality of the new Queensland houses, designed for a climate that permitted a high degree of indoor-outdoor living. At no time before or since the decade after World War II was there such a contribution to the design of a rational sub-tropical house as the work of that generation of progressive architects. The government agencies continued to provide much of the single-family housing, but they rarely departed from the traditional designs, because that would tend to frighten off the tenderers.

THE COUNTRY HOUSE

The country houses and homesteads of Queensland are a separate study, being distributed over such varying climatic zones. When the settlers' original two-room cottages proved inadequate for housing a growing family and staff, they built a typical farm house such as can be found throughout Queensland, with little design variants or concession to local climatic influences. This became identified in the public mind as the characteristic home of the man on the land.

In most cases, as families increased, the verandahs were partially or fully enclosed to provide extra living or sleeping accommodation, and the original form remained unchanged. In others, generations of bush-carpenters produced rambling incoherent plans by adding rooms connected by "landings" or covered ways. A negligible number of country houses were built under professional guidance. The independent owners knew what they wanted. It was an undisciplined style of domestic planning that evolved from the owners' changing economic and social conditions. The difference between the humbler farmhouses and the proud homesteads was one of funds rather than taste. The same basic materials were used to solve the same problems with an uncomplicated simplicity of construction.

Recurring slumps and changing social conditions virtually ended the era of the spacious mansions of families who had created grazing empires. Towards the end of the 19th century the first "homes to measure" were being pre-cut and despatched from Brisbane to all parts of the State.

The pastoral boom of the 1950's caused a spate of homestead building, much of which was architect-designed. Unfortunately, recommendations from building research organisations on ways of improving country housing standards were slow to filter through and be accepted, and as a result there has been little advance in rural construction. Under the influence of what is seen in the cities and in the glossy "home" magazines, the unpretentious, commonsense country house is vanishing. As in the case of its suburban model, the design principles established over the years are largely being ignored. Efforts by scientists and educators to make the farmhouse as comfortable and mechanised as the city house have become confused with aping its appearance.